



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,422	10/31/2003	Edgar J. Mister	NOR-1153	2069

37172 7590 01/10/2006

WOOD, HERRON & EVANS, LLP (NORDSON)
2700 CAREW TOWER
441 VINE STREET
CINCINNATI, OH 45202

EXAMINER

KOCH, GEORGE R

ART UNIT	PAPER NUMBER
----------	--------------

1734

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/699,422	Applicant(s) MISTER ET AL.	
	Examiner George R. Koch III	Art Unit 1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17,24,25,27-30 and 32-34 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,6,7,10,11,13,14,27,28,32 and 33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,8,9,12,15-17,24,25,29,30 and 34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Applicant is advised that should claim 2 be found allowable (and rejoinder is not permitted, such as because the patentability of the claims is due to the species), claim 24 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Claim 2 is substantially identical to the first, elected, alternative in claim 24.

2. Applicant is advised that should claim 9 be found allowable (and rejoinder is not permitted, such as because the patentability of the claims is due to the species), claim 29 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Claim 9 is substantially identical to the first, elected, alternative in claim 29.

Claim Rejections - 35 USC § 102

Art Unit: 1734

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 34 is rejected under 35 U.S.C. 102(b) as being anticipated by Gutsaffson (US 6,035,604).

As to claim 34, Gutsaffson discloses an apparatus for monitoring the operation of a heating device having a plurality of heating elements moving periodically along at least one predefined path, the apparatus comprising: a first sensor (item 92), a second sensor adjacent said first sensor (item 93), said first sensor configured to sense the presence of successive heating elements proximate said second sensor as the heating elements move past said sensors along the predefined path; said second sensor configured to successively sense temperatures respectively associated with the heating elements as the heating elements move past said sensors (see column 7, lines 61-67, which discloses that the proximity sensor can be replaced with a temperature sensor); and controller coupled to the first and second sensor and configured to perform a control function in response to temperature sensed by said second sensor (column 6, line 49 to column 7, line 6).

Claim Rejections - 35 USC § 103

Art Unit: 1734

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1, 2, 5, 8, 9, 12, 15-17, 24-25, and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pruett (US Patent 5,678,390) in view of Heaney (US Patent 4,722,168) and Gustafsson (US patent 6,035,604).

Pruett discloses an apparatus for monitoring the operation of a heating device at least one heating element (items 32 and 36) moving periodically along a predefined path (the rotational path of the sealing head), the apparatus comprising a second sensor (temperature sensors 59 and 63) configured to sense a temperature associated with the heating element, and a controller coupled with the second sensor and configured to monitor the second sensor and to perform a control function in response to the temperature sensed by the second sensor (see Figures 7a-e).

Pruett does not disclose a first sensor (position resolver 47) configured to sense the presence of the heating element as the heating element moves past the first sensor,

Art Unit: 1734

or that the controller additionally interacts based on this first sensor information, or that the second sensor is mounted to allow movement of the heating element relative thereto and operates when the first sensor senses the presence of the heating element.

Heaney discloses a first sensor (position resolver 47) configured to sense the presence of the heating element in the context of a measuring system that also includes temperature sensor and a controller that reacts in response to both first and second sensors. Furthermore, Gutsaffson discloses utilizing sensors adjacent each other and that sensors can be replaced with temperature sensors (see column 7, lines 61-67). One in the art would immediately appreciate that such a presence sensor adjacent to the temperature sensor would enable control of the positioning and registration of the heating element relative to the substrate, and would thus improve final product quality. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized a position sensor as in Heaney in the position of Gutsaffson in order to improve the quality of the final production.

As to claim 2, Pruett discloses that the controller is configured to indicate when the temperature sensed by the second sensor deviates from a predetermined temperature range (see Figure 7b, especially steps 116 through 128).

As to claim 8, Pruett discloses an apparatus sealing bags filled with articles, comprising a sealing station including a press plate (i.e., a crimp mechanism - see abstract) and at least one heating element proximate the press plate and configures to move in a periodic motion relative to the press plate, a conveyor (item 11, Figure 1) adapted to transport a bag from the bag fill machine to the sealing station, a sealing

Art Unit: 1734

station monitor comprising a second sensor (temperature sensors 59 and 63) configured to sense a temperature associated with the heating element, and a controller coupled with the second sensor and configured to monitor the second sensor and to perform a control function in response to the temperature sensed by the second sensor (see Figures 7a-e).

Pruett does not disclose a first sensor (position resolver 47) configured to sense the presence of the heating element as the heating element moves past the first sensor, or that the controller additionally interacts based on this first sensor information, or that the second sensor is mounted to allow movement of the heating element relative thereto and operates when the first sensor senses the presence of the heating element.

Heaney discloses a first sensor (position resolver 47) configured to sense the presence of the heating element in the context of a measuring system that also includes temperature sensor and a controller that reacts in response to both first and second sensors. Furthermore, Gutsaffson discloses utilizing sensors adjacent each other and that sensors can be replaced with temperature sensors (see column 7, lines 61-67). One in the art would immediately appreciate that such a presence sensor adjacent to the temperature sensor would enable control of the positioning and registration of the heating element relative to the substrate, and would thus improve final product quality. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized a position sensor as in Heaney in the position of Gutsaffson in order to improve the quality of the final production.

As to claim 9, Pruett discloses that the controller is configured to indicate when the temperature sensed by the second sensor deviates from a predetermined temperature range (see Figure 7b, especially steps 116 through 128).

As to claim 24, Pruett discloses that the controller is configured to indicate when the temperature sensed by the second sensor deviates from a predetermined temperature range (see Figure 7b, especially steps 116 through 128).

As to claim 29, Pruett discloses that the controller is configured to indicate when the temperature sensed by the second sensor deviates from a predetermined temperature range (see Figure 7b, especially steps 116 through 128).

As to claims 5, 12, 25, and 30, Heaney as incorporated into Pruett discloses a position encoder, but does not go into detail as to the encoder.

Gustafsson discloses using a proximity sensor (described in column 6, lines 27-48). Gustafsson discloses that the proximity sensor ensures a quality seal formation by ensuring that the sealing components are properly lined up (for example, see the function of the circuit in column 6, line 56 to column 7, line 13). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such proximity sensors in order to achieve proper seal formation.

As to claims 15-17, Pruett and Heaney utilize a roller for the heat sealing element, rather than a belt. However, Gustafsson discloses that the heating elements are disposed on a chain conveyor, i.e., a rotating endless belt. Furthermore, one in the art would immediately recognize that such a belt enables a longer heating element "contact time", and thus a corresponding lower temperature for the heating element,

Art Unit: 1734

resulting in reduced risk of burning of the packaging material. Additional, as a separate motivation, one in the art would also appreciate that a belt enables a “flat”, extended contact of the sealing element with the packaging material, thus enabling a better seal formation. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilize a belt in order to both reduce the risk of burning the packaging or sealing material, and to improve seal formation.

Furthermore, as to claims 16, the heating blocks in Heaney disclose that it is known to seal an individual bag in a revolution.

As to claim 17, Pruett and Gutsafsson disclose that the heater elements seal a bag in the form of a web or tub at the desired intervals.

Response to Arguments

8. Applicant's arguments filed 10/13/05 with regard to the provisional claim objections have been fully considered but they are not persuasive, in part due to no indication of allowable subject matter. The claims are being examined as if the non-elected species are not present, and thus, the claims are duplicative. In the event that rejoinder is permitted, the objection would be removed. In the event that rejoinder is not permitted (due to the species structure being part of the basis for allowability), the object would remain.

9. Applicant's arguments filed 10/13/05 with regard to the art rejections under 35 USC 102 and 103 have been fully considered but they are not persuasive.

Applicant's argument is based on the position that second sensor is not mounted to sense the temperature associated with the heating element when the first sensor senses the presence of the heating element.

The structures of Gutsaffson and Pruett do disclose position sensors and temperature sensors for sensing the presence or position of the heating element and the temperature of the heating elements. These sensors operate continuously (see Gutsaffson analog circuit structure, for example, which is inherently continuous). These sensors, especially in Gutsaffson, are sufficiently closely position together to read on the limitations of the claims. Therefore, the Examiner's position is that applicant's claim scope interpretation on pages 12-13 is unduly narrow.

10. In response to applicant's argument (page 14 of the remarks filed 10/13/2005) that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, one in the art would immediately recognize that doing so would enable control of the positioning and registration of the heating element relative to the substrate, and would thus improve final product quality.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

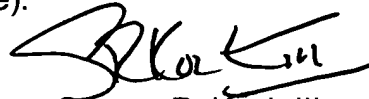
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-866-377-8642 and giving the operator the above TDD number. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1734

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'GRK', with a stylized flourish at the end.

George R. Koch III
Primary Examiner
Art Unit 1734

GRK
1/9/2006